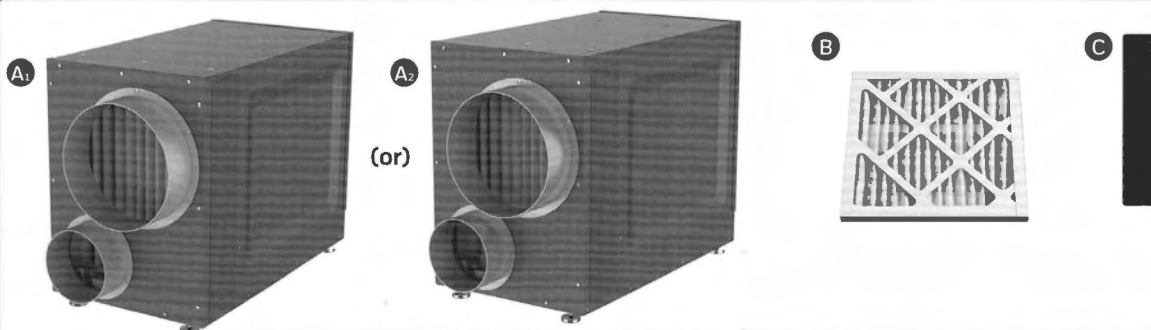




# DR90A3000/DR120A3000

PROFESSIONAL INSTALLATION GUIDE  
GUIDE D'INSTALLATION PROFESSIONNELLE  
GUÍA DE INSTALACIÓN PROFESIONAL

## INCLUDED IN THIS BOX



## OPTIONAL CONTROLS SOLD SEPARATELY



### Tools required to install DR90A3000/DR120A3000

#### Dehumidifier

- 3/8" hex drive
- Drill or duct cutting tool
- Wire stripper/cutter
- Scissors or utility knife
- Standard screwdriver
- T25 Torx screwdriver
- Duct tape
- 10" round duct and starter collar
- 3/4" male NPT to drain line adaptor (1/2" Dia. recommended)
- 1/2" diameter drain line (8')
- 1/2" drain clamps (2)

#### Options

- 1/2" drain p-trap (may be required by local code)
- Drain pan
- Float switch or water sensor

- A<sub>1</sub> DR90A3000 (1) or
- A<sub>2</sub> DR120A3000 (1)
- B MERV 8 Filter (1)
- C Filter Door (2)
- D Installation Guide
- E<sub>1</sub> Prestige™ IAQ Kit
- E<sub>2</sub> VisionPRO™ Smart or VisionPRO RedLINK
- E<sub>3</sub> H6062 HumidiPRO Digital Humidity Control
- E<sub>4</sub> T10 or T10+ Pro Smart thermostat



## Installation Checklist

### Included in This Box

- A1 DR90A3000 (1) or
- A2 DR120A3000 (1)
- B MERV 8 Filter (1)
- C Filter Door (2)
- D Installation Guide

### Control Options (Sold separately)

- E1 Prestige IAQ Kit
- E2 VisionPRO™ Smart or VisionPRO™ RedLINK
- E3 H6062 HumidiPRO Digital Humidity Control
- E4 T10 or T10+ Pro Smart thermostat

### Tools Required (Not Supplied)

- 3/8" hex drive
- Drill or duct cutting tool
- Wire stripper/cutter
- Scissors or utility knife
- Standard screwdriver
- T25 Torx screwdriver
- Duct tape
- 10" round duct and starter collar
- 18-22 gauge, 5 band thermostat wire
- 1/2" diameter drain line (8')
- 1/2" drain clamps (2)
- 3/4" male NPT to drain line adaptor (1/2" Dia. recommended)

### Options

- 1/2" drain p-trap (may be required by local code)
- Drain pan
- Float switch or water sensor

**NOTE: Float switch or drain pan required if installed in location where water damage can occur if drain line gets clogged.**



**Warning:** Installation must be performed by a qualified service technician and must comply with local codes. Remove power to the device before installing or servicing the device. Failure to connect the device according to these instructions may result in damage to the device or the controls.  
INSTALLATION INSTRUCTIONS  
BEGIN ON PAGE 6

## Liste de vérification pour l'installation

### Inclus dans cette boîte

- A1 Unité DR90A3000 (1) ou
- A2 Unité DR120A3000 (1)
- B Filtre MERV 8 (1)
- C Trappe du filtre (2)
- D Guide d'installation

### Options de régulateurs (vendus séparément)

- E1 Nécessaire Prestige IAQ
- E2 VisionPRO™ Smart ou VisionPRO™ RedLINK
- E3 Régulateur d'humidité numérique HumidiPRO H6062
- E4 Thermostat intelligent T10 ou T10+ Pro

### Outils requis (non fournis)

- Tournevis cruciforme 3/8 po
- Outil de perçage ou de coupe de conduit
- Dénudeur/coupe-fils
- Ciseaux ou couteau à lame rétractable
- Tournevis normal
- Tournevis Torx T25
- Ruban adhésif
- Collet de conduit et de départ rond de 10 po (25,4 cm)
- Fil de thermostat 5 bandes calibre 18-22
- Tuyau de vidange de 1/2 po de dia. (8 pieds [2,4 m])
- Attaches de tuyau de vidange de 1/2 po [1,3 cm] (2)
- Adaptateur mâle 3/4 po NPT vers conduite de vidange (diamètre de 1/2 po recommandé)

### Options

- Siphon-P de vidange d'1/2 po [1,3 cm] (peut-être requis par le code local)
- Bac de récupération
- Flotteur ou capteur d'eau

**REMARQUE: Si l'appareil est installé dans un endroit où des dégâts d'eau peuvent se produire en cas d'obstruction de la conduite de vidange, un interrupteur à flotteur ou un bac de vidange est nécessaire.**



**Avertissement:** L'installation doit être effectuée par un technicien d'entretien qualifié et conformément aux codes locaux en vigueur. Couper l'alimentation vers l'appareil avant d'installer ou de réparer cet appareil. Un raccordement de cet appareil non conforme à ces instructions peut entraîner des dommages à l'appareil ou aux commandes.  
INSTRUCTIONS D'INSTALLATION  
COMMENCENT À LA PAGE 6

## Lista de verificación para la instalación

### Esta caja incluye

- A1 DR90A3000 (1) o
- A2 DR120A3000 (1)
- B Filtro MERV 8 (1)
- C Puerta del filtro (2)
- D Guía de instalación

### Opciones de control (se venden por separado)

- E1 Kit Prestige IAQ
- E2 VisionPRO™ Smart o VisionPRO™ RedLINK
- E3 Control de humedad digital HumidiPRO H6062
- E4 Termostato inteligente T10 o T10+ Pro

### Herramientas necesarias (no se suministran)

- Dado Exagonal de 3/8" (9,5mm)
- Taladro o herramienta cortante para ductos
- Alicates o cortadores de cables
- Tijera o navaja
- Destornillador estándar
- Destornillador Torx T25
- Cinta para Ductos
- Ducto redondo de 10" (25,4 cms) y collar de ajuste
- Cable de termostato calibre 18 a 22, de 5 conductores
- Línea de desagüe de 1/2 pulgada (12,7 mm) de diámetro (8 pies [2,4 m])
- Abrazaderas de desagüe de 1/2 pulgada [12,7 mm] (2)
- NPT macho de 3/4 pulgada (19,1 mm) para drenar el adaptador de tubería (se recomienda un diámetro de 1/2 pulgada [12,7 mm])

### Opciones

- Trampa en P para desagüe de 1/2 pulgada [12,7 mm] (es posible que el código local la exija)
- Bandeja para drenaje
- Interruptor del flotador o sensor de agua

**NOTA: Se requiere un interruptor de flotador o una bandeja de drenaje en caso de que se instale en un lugar en el que el agua pueda causar daños si la línea de drenaje se obstruye.**



**Advertencia:** La instalación la debe realizar un técnico de reparación calificado y debe cumplir con los códigos locales. Retire la fuente de energía del dispositivo antes de instalar o reparar el dispositivo. Si no conecta el dispositivo según estas instrucciones, el dispositivo o los controles se pueden dañar.  
LAS INSTRUCCIONES DE INSTALACIÓN  
COMIENZAN EN LA PÁGINA 6

# DR90A3000/DR120A3000

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- The DR90A3000/DR120A3000 is designed to be installed indoors in a space that is protected from rain and flooding.
- Install the unit with space to access the front panel for maintenance and service.
- Avoid directing the discharge air at people, or over the water in pool areas.
- If used near a pool or spa, be certain there is no chance the unit could fall into the water or be splashed, and that it is plugged into a ground fault interrupt (GFI) outlet.
- To ensure quiet operation, do not place the device directly on the structural supports of the home.
- **A drain pan must be placed under the unit if installed above a living area or above an area where water leakage could cause damage.**
- **DR90/DR120 should be installed on a stationary base or sitting on the floor. It should not be mounted above other HVAC components such as the A-coil.**



1. Never operate a unit with a damaged power cord. If the power cord is damaged it must be replaced by the manufacturer, its service agent, or similarly qualified person in order to avoid a hazard.
2. The appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



NEED HELP? For assistance with this product please visit <http://customer.resideo.com> or call Customer Care toll-free at 1-800-468-1502.

Read and save these instructions.

# About the DR90A3000/DR120A3000 Dehumidifier

The DR90A3000/DR120A3000 ensures the home is maintained at proper humidity levels through its high performance and efficiency.

## Benefits

- Removes up to 90 (DR90) or 120 (DR120) pints of water per day from the indoor air
- Built-in fresh air supply
- Energy Star Rated
- Built-in transformer and fuse

## Maintaining Ideal Humidity

Dew points and relative humidity (RH) affect the way your body senses heat. Higher humidity levels cause the air to feel much hotter than the actual temperature. When maintained properly, your cooling equipment may not run as much because dehumidified air feels cooler.

Ideal humidity is defined by industry experts\* as being between 40-60% on an average annual basis.

### Capacity:

47 pints/day (60 °F [15.6 °C], 60 %RH)

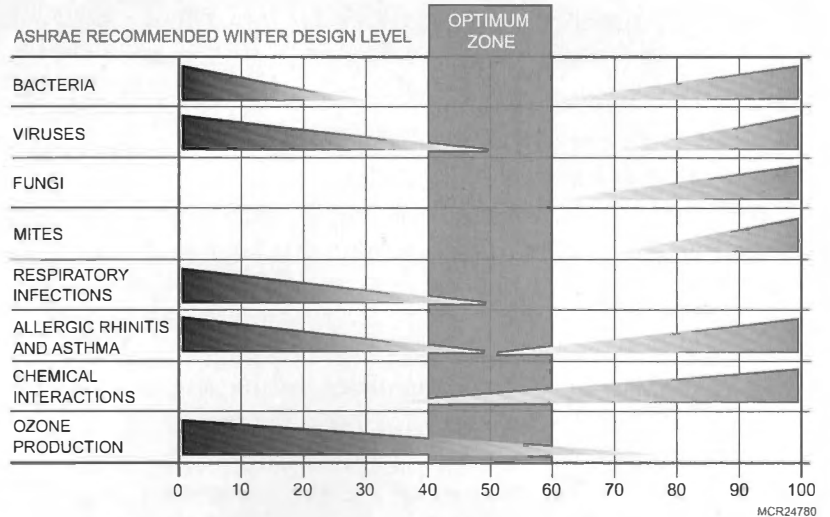
65 pints/day (70 °F [21.1 °C], 60 %RH)

90 pints/day (80 °F [26.7 °C], 60 %RH)



When indoor humidity exceeds 60%, the home is more susceptible to mold and mildew growth. DR90A3000/DR120A3000 safeguards against excessive humidity in the home year-round.

*\*American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).*



## Control Options

The DP90A3000/DR120A3000 may be used with one of the following external controls:

### T10 or T10+ Pro Smart Thermostat (T10 models begin with THX321WF, T10+ kits begin with YTHM1004R)

- Controls heating/cooling and dehumidification.
- Advanced dehumidifier setting options to run system fan with dehumidifier or lock out dehumidifier if cooling is running.



### Prestige IAQ Thermostat Kit

Prestige kit models numbers start with YTHX9421R

- Controls both heating/cooling and dehumidification.
- Wireless sensor for displaying outdoor temperature and humidity.
- Maintenance and service reminders.
- High definition color display.
- RedLINK® Wireless technology



### VisionPRO Smart or VisionPRO RedLINK® Thermostat

- WiFi (TH8321WF1001) or RedLINK Wireless technology (TH8321R1001)
  - Controls heating/cooling and ventilation.
  - Display outdoor temperature and humidity.
  - Advanced dehumidifier setting options to run system fan with dehumidifier or lock out dehumidifier if cooling is running.
  - Optional ventilation lockouts for high/low temp or humidity conditions.
- C7089R1013 wireless outdoor sensor for RedLINK model. Internet weather for Smart model.



### HumidiPRO Digital Control (H6062A1000)

- Manual dehumidification control
- Dehumidifier compressor protection
- RH% and outdoor temperature calibration
- Adjustable high and low range stops (10-90%)



### Automatic Ventilation Controls

- Automatic W8150 ventilation control to ASHRAE standard, or for continuous operation.

Note: A separate dehumidity control is required with W8150.



# DR90 Specifications

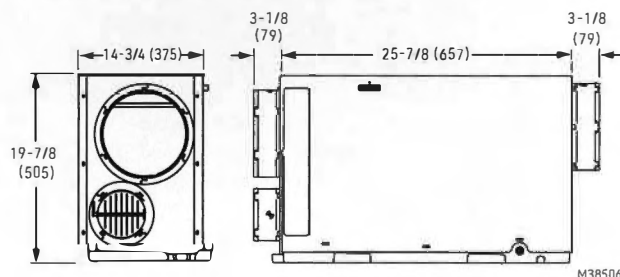
Install DR90A3000 according to National Electric Codes.

Dry-Bulb Temp	Intake Humidity	Capacity (Pints/Day)
80°F (26.7°C)	60% RH	90
70°F (21.1°C)	60% RH	65
60°F (15.6°C)	60% RH	47

Home Size (square ft [m])	Dehumidifier Capacity Required to Maintain Desired Indoor RH*		
	60% RH Indoor (pints/day)	50% RH Indoor (pints/day)	40% RH Indoor (pints/day)
2080 (193.2)	49-54	55-58	71-78
2600 (241.5)	61-68	65-72	90-97
3120 (289.9)	75-82	79-86	95-110

\* Based on extreme climates where outdoor humidity is 70-90% RH. For less extreme climates, larger homes can be adequately served with less capacity. Actual requirements may vary.

## Dimensions in inches and (mm):



**Product weight:** 86 lbs.

**Shipping weight:** 95 lbs.

**Shipping dimensions:** 25.2" H x 19.3" W x 35.8" L

**Media Filter:** MERV 8, 14" H x 17.5" W x 1.75" L

**Drain connection:** 3/4" threaded female NPT connection.

**Duct connections:** 10" round inlet and outlet. 6" supply inlet.  
ABS plastic, compatible for connection to rigid or flexible ducting with sheet metal screws and/or tape.

**Cabinet:** 20 ga

**Insulation:** R value 1

**Compressor:** Rotary, 7.3 KBTU

**Refrigerant:** R-410A, 25 oz

**Operating Temp Range (outside cabinet):**

34°F to 135°F (1.1°C to 57.2°C)

**Operating Humidity Range:** 0-99% RH

## Airflow versus external static pressure (0-1 in. [0 - 25.4 mm] water pressure) with collars attached

0 in. (0 mm)	320 CFM
0.2 in. (5 mm)	280 CFM
0.4 in. (10 mm)	260 CFM
0.6 in. (15.2 mm)	215 CFM

## Input ratings

- Electrical input voltage: 110-120 VAC, 60 Hz nominal
- Input current: 5.3 A

## Output ratings

- **Power transformer to R/C terminals:** 24 VAC, 0.85 A
- **Energy Performance:** 2.4 liters (5.07 pints) per kilowatt hour (KWH)

## Standards and approval body requirements

- ETL Listed per UL 60335-1, 60335-2-40, CSA C22.2 No. 60335-1 and 60335-2-40
- ENERGY STAR rated.

# DR120 Specifications

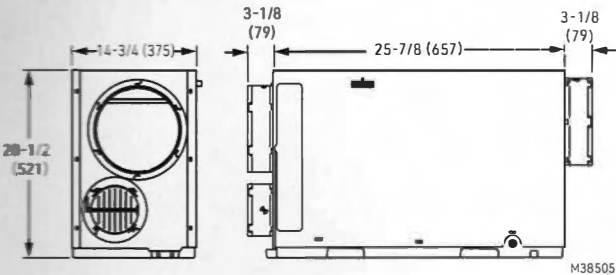
Install DR120A3000 according to National Electric Codes.

Dry-Bulb Temp	Intake Humidity	Capacity (Pints/Day)
80°F (26.7°C)	60% RH	120
70°F (21.1°C)	60% RH	88
60°F (15.6°C)	60% RH	63

Home Size (square ft [m])	Dehumidifier Capacity Required to Maintain Desired Indoor RH*		
	60% RH Indoor (pints/day)	50% RH Indoor (pints/day)	40% RH Indoor (pints/day)
2080 (193.2)	49-54	55-58	71-78
2600 (241.5)	61-68	65-72	90-97
3120 (289.9)	75-82	79-86	95-110

\* Based on extreme climates where outdoor humidity is 70-90% RH. For less extreme climates, larger homes can be adequately served with less capacity. Actual requirements may vary.

## Dimensions in inches and (mm):



- Product weight: 95 lbs.
- Shipping weight: 104 lbs.
- Shipping dimensions: 26" H x 19.3" W x 35.8" L
- Media Filter: MERV 8, 14" H x 17.5" W x 1.75" L
- Drain connection: 3/4" threaded female NPT connection.
- Duct connections: 10" round inlet and outlet. 6" supply inlet. ABS plastic, compatible for connection to rigid or flexible ducting with sheet metal screws and/or tape.
- Cabinet: 20 ga
- Insulation: R value 1
- Compressor: Rotary, 9.4 KBTU
- Refrigerant: R-410A, 30 oz
- Operating Temp Range (outside cabinet): 34°F to 135°F (1.1°C to 57.2°C)
- Operating Humidity Range: 0-99% RH

## Airflow versus external static pressure (0-1 in. [0 - 25.4 mm] water pressure) with collars attached

0 in. (0 mm)	400 CFM
0.2 in. (5 mm)	345 CFM
0.4 in. (10 mm)	295 CFM
0.6 in. (15.2 mm)	250 CFM

## Input ratings

- Electrical input voltage: 110-120 VAC, 60 Hz nominal
- Input current: 7.5 A

## Output ratings

- Power transformer to R/C terminals: 24 VAC, 0.85 A
- Energy Performance: 2.5 liters (5.28 pints) per kilowatt hour (KWH)

## Standards and approval body requirements

- ETL Listed per UL 60335-1, 60335-2-40, CSA C22.2 No. 60335-1 and 60335-2-40
- ENERGY STAR rated.



# Install to Fit Your Application

Flex duct is recommended in connecting to the DR90A3000/DR120A3000 collars to reduce vibration noise.



**Duct Sizing:** Use minimum 10" diameter round for duct lengths up to 25'. Minimum 12" required for lengths longer than 25'. Duct branches from the main inlet/exhaust should be minimum 10" round for 2-3 branches, and 12" round or larger for 4 branches or more.

For the optional fresh air ventilator port, use 6" round, insulated duct for lengths up to 50'.

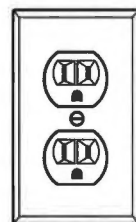
Use 8" round duct for more than 50' or if more than 100 CFM is required.

**Isolated Areas:** Effective dehumidification may require ducting to isolated or stagnant air flow areas.

## Electrical requirements:

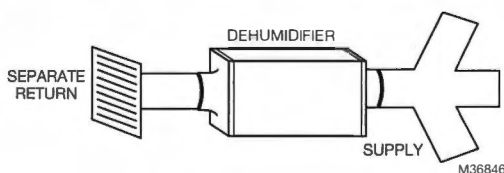
120 VAC outlet. Ground fault interrupter (GFI) recommended.

**NOTE:** If voltage is below 102 VAC or above 132, dehumidifier may be locked out.



**A**

## Dedicated Return to Dedicated Supply

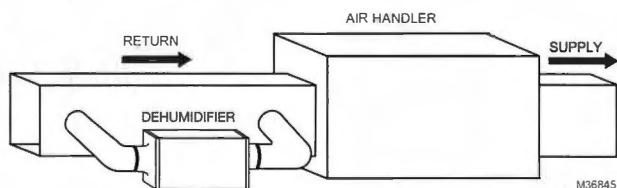


Ideal when...

- The dehumidifier will not be ducted to a forced air HVAC system.

**B**

## Main Return to Main Return



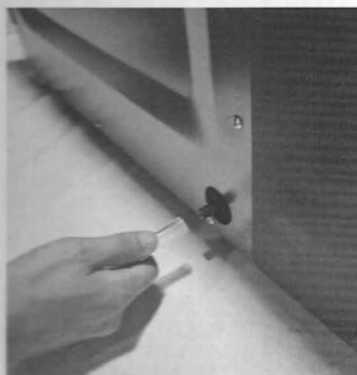
Ideal when...

- Running DR90A3000/DR120A3000 with A/C operation.
- Minimizing discharge air temperature (DAT) increase is preferred.
- Access to a dedicated return is not possible.

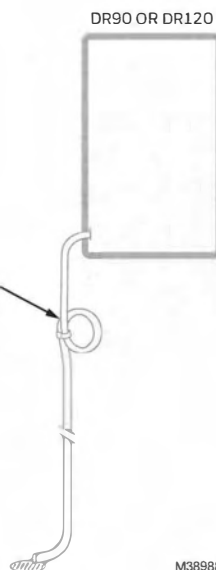


## Install to Fit Your Application (continued)

### Plumbing



IMPORTANT: LOOP  
DRAIN HOSE BELOW  
DEHUMIDIFIER  
TO PROVIDE TRAP



M38988

Attach 3/4" male NPT PCV drain nozzle (use teflon tape if needed). Do not over-tighten.

Connect 1/2" drain tube to male connection drain outlet. Secure drain tube to connector with hose clamp.

Run drain hose continuously downhill to an approved drain or condensate pump.

The drain line must include a water trap to prevent air from entering or exiting the dehumidifier.

**NOTE:** It is important that the DR90/DR120 is leveled for drain line to work properly.



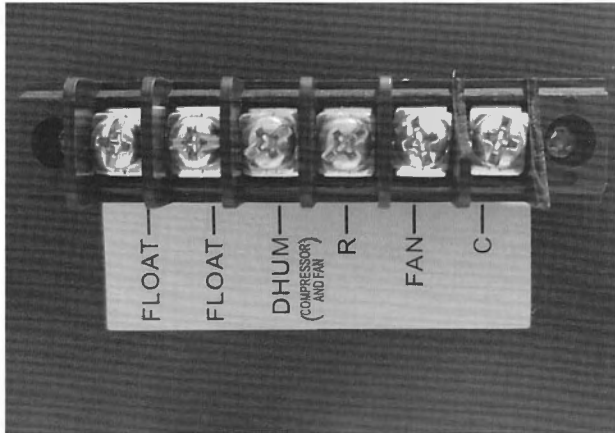
M24745

# Terminal Description

W



**CAUTION:** Low voltage hazard.  
Can cause equipment damage.  
Disconnect HVAC equipment before beginning installation.



**NOTE:** The outer screws on the terminal block secure the block to the chassis. They are not used for wiring.

A wiring terminal block is located on the side panel of the dehumidifier unit.

The six terminals for the terminal block (reading from left to right in the photo) are:

**FLOAT:** External low voltage float switch or water sensor (two terminals). Use normally closed switch.

**DHUM:** Compressor and fan operation for dehumidification

**R:** 24V HOT output

**FAN:** Fan activation only for ventilation

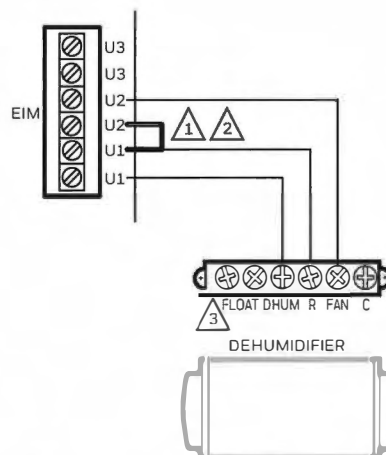
**C:** 24V Common output

External 24V devices can be powered from R and C terminals (20VA max.).

## Wiring

Wire the DR90A3000/DR120A3000 according to the diagram that applies to your desired operation.

Follow this diagram if using the Prestige thermostat.



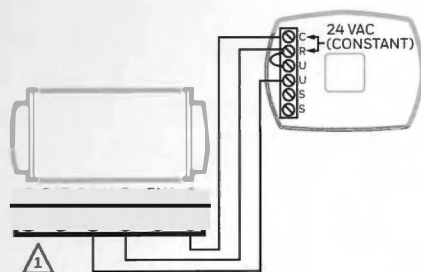
1 IN THIS DIAGRAM, U1 CONTROLS THE DR90/DR120 FOR DEHUM AND U2 CONTROLS THE DR90/DR120 FOR VENTILATION.

2 INSTALL A JUMPER ON EIM AS SHOWN ONLY WHEN USING THE DR90/DR120 FOR VENTILATION IN ADDITION TO DEHUMIDIFICATION.

3 IF A FLOAT SWITCH IS NOT USED, THEN JUMPER THE FLOAT TERMINALS.  
M38418B

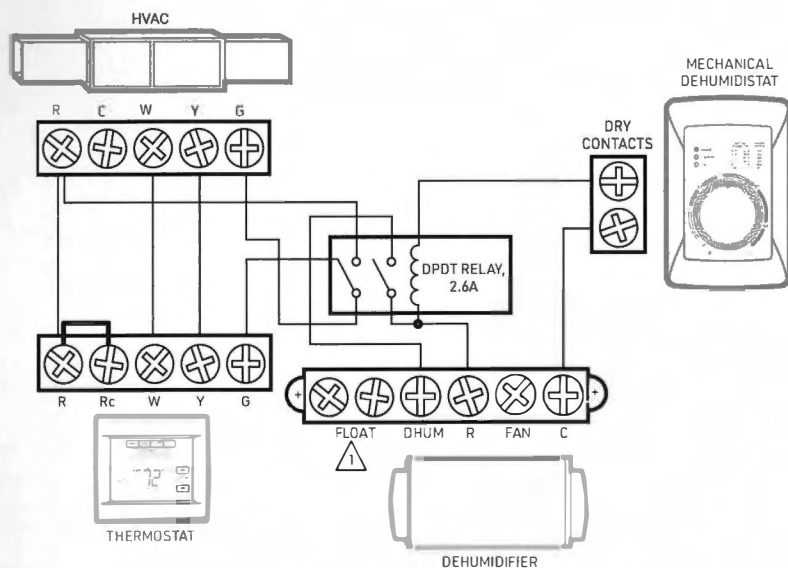
# Wiring (continued)

FOLLOW THIS DIAGRAM IF USING THE HUMIDIPRO DIGITAL HUMIDITY CONTROLLER NOT CONNECTED TO HVAC DUCTING.



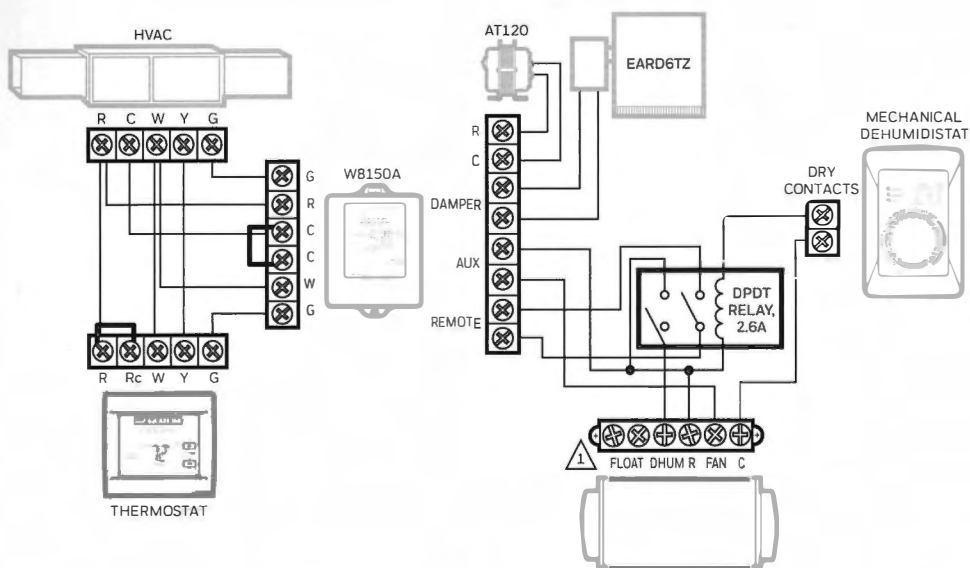
1 IF A FLOAT SWITCH IS NOT USED, THEN JUMPER THE FLOAT TERMINALS.  
M37492B

FOLLOW THIS DIAGRAM FOR DUCTED OPERATION WITH AN EXTERNAL HUMIDITY CONTROL.



1 IF A FLOAT SWITCH IS NOT USED, THEN JUMPER THE FLOAT TERMINALS.  
M36854C

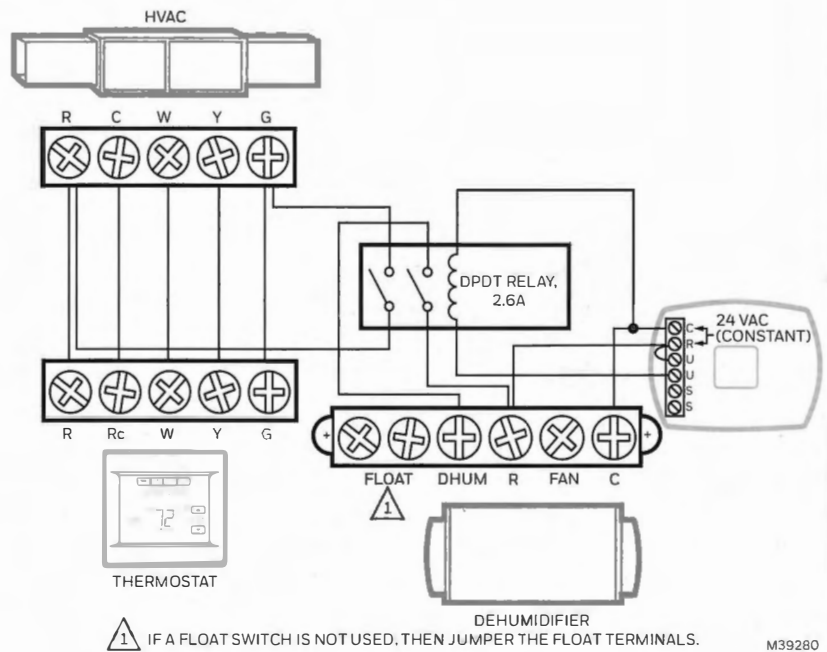
FOLLOW THIS DIAGRAM FOR DUCTED OPERATION WITH EXTERNAL HUMIDITY AND VENTILATION CONTROL.



1 IF A FLOAT SWITCH IS NOT USED, THEN JUMPER THE FLOAT TERMINALS  
M36855B

## Wiring (continued)

FOLLOW THIS  
DIAGRAM IF USING THE  
HUMIDIPRO DIGITAL  
HUMIDITY CONTROLLER  
WHEN DR90/DR120 IS  
CONNECTED TO HVAC  
DUCTING.



M39280

## Checkout

Apply power to DR90A3000/DR120A3000. Turn the humidity control to a low RH% level to initiate a dehumidification **call**. Confirm that the DR90A3000/DR120A3000 compressor and fan turn on. If the RF and GF on the DR90A3000/DR120A3000 is wired to the furnace, the furnace fan should also run. This will take up to two minutes. Be sure to turn the control to the desired RH% or to Off when checkout is complete.

If using for ventilation, initiate a call for ventilation. Confirm that the DR90A3000/DR120A3000 fan turned on, but that the **compressor remained off**.

**NOTE:** Starting with revision 2 models (a sideways 2 after the model number on the sticker), the dehumidifier may enter a 2-5 minute delay to protect the compressor from short cycling.

## Cleaning

On an annual basis, perform the following maintenance requirement to ensure the dehumidifier runs at peak efficiency.

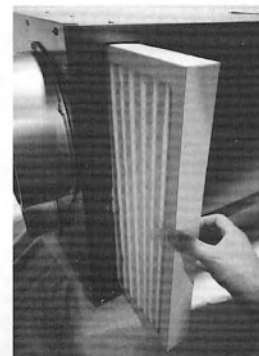
1

Unplug DR90A3000/DR120A3000 before beginning service. Remove the magnetic filter door.



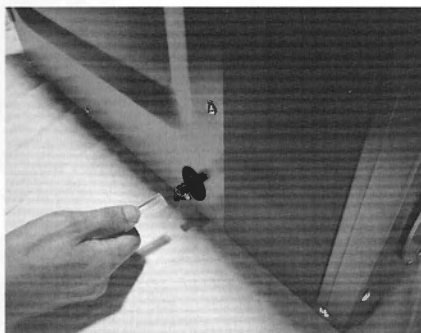
2

Remove filter and replace with new filter.



3

Check the drain connection and drain line to ensure it is clear of debris and sludge. Ensure all hose connections are secure once maintenance of the drain lines is complete.



4

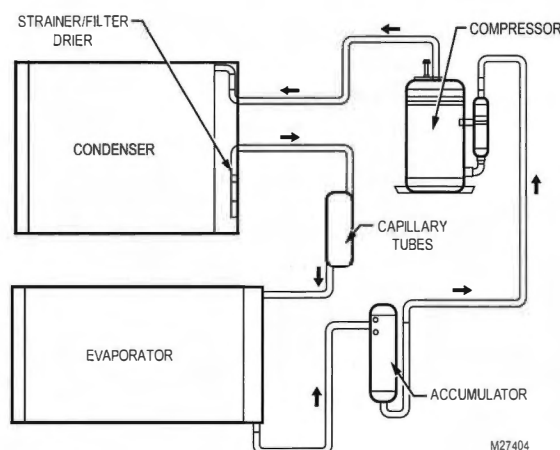
When service is complete, initiate a call for dehumidification and check that the compressor and fan activate. If your thermostat has maintenance reminders, reset those.

VAC  
INSTANT

M39280

# Technical Description

DR90A3000/DR120A3000 uses a refrigeration system similar to an air conditioner to remove heat and moisture from incoming air and add heat to the air that is discharged. Hot, high-pressure refrigerant gas is routed from the compressor to the condenser coil. The refrigerant is cooled and condensed by giving up its heat to the air that is about to be discharged from the unit. The refrigerant liquid then passes through a filter drier and capillary tubing which causes the refrigerant pressure and temperature to drop. It next enters the evaporator coil where it absorbs heat from the incoming air and evaporates. The evaporator operates in a flooded condition, which means that all the evaporator tubes contain liquid refrigerant during normal operation. A flooded evaporator should maintain nearly constant pressure and temperature across the entire coil, from inlet to outlet.



## Defrost

If the DR90 or DR120 dehumidifier coil starts to freeze up it goes into defrost mode. The dehumidifier shuts off the compressor and runs the fan until the coil temperature rises. For rev 2 models (a sideways 2 after the model number on the sticker) the dehumidifier makes a single beep when first powered up or when it enters defrost mode.

## Troubleshooting



**CAUTION:** Servicing the DR90A3000/DR120A3000 with its high pressure refrigerant system and high voltage circuitry presents a health hazard which could result in death, serious bodily injury, and/or property damage. Service should only be performed by a qualified service technician.

Problem	Troubleshooting Steps/Possible Causes of Issue
Neither the dehumidifier fan nor compressor run when the control is calling for dehumidification.	<ol style="list-style-type: none"> <li>1. Verify the drain line is not clogged. An internal float switch can lock out the dehumidifier if the drain line gets clogged.</li> <li>2. Wait 5 minutes from the time you made the call for dehumidity. Series 2 versions of the DR90 and DR120 have a 2-5 minute compressor protection delay. If the control is digital, it may also have a delay. These delays will overlap, so if the humidity control has been calling for over 5 minutes and power has not cycled, the dehumidifier should run.</li> <li>3. If it does not run after the delay, install a jumper between the R and DHUM terminals on the dehumidifier. This bypasses the control circuit. If the unit runs, the issue was with the control or wires to the control.</li> <li>4. If the unit still does not run within 5 minutes of installing a jumper from R to DEHUM, verify voltage to the outlet that the dehumidifier is plugged into. This should be 120 VAC nominal and if it drops below 102 VAC or above 132 VAC, the dehumidifier will not run.</li> </ol>
The dehumidifier fan runs but the compressor does not when the control is calling for dehumidification.	<p>If there is a wire to "FAN" on the dehumidifier, remove that wire and see if the dehumidifier fan continues to run. If the fan shuts off, then whatever is controlling the fan was calling for ventilation. That doesn't mean a control is calling for dehumidity. Follow the steps from the first issue for further testing.</p> <p>If there is no wire to the "FAN" terminal and the dehumidifier FAN is running but the compressor is not, the dehumidifier may be running in defrost.</p>

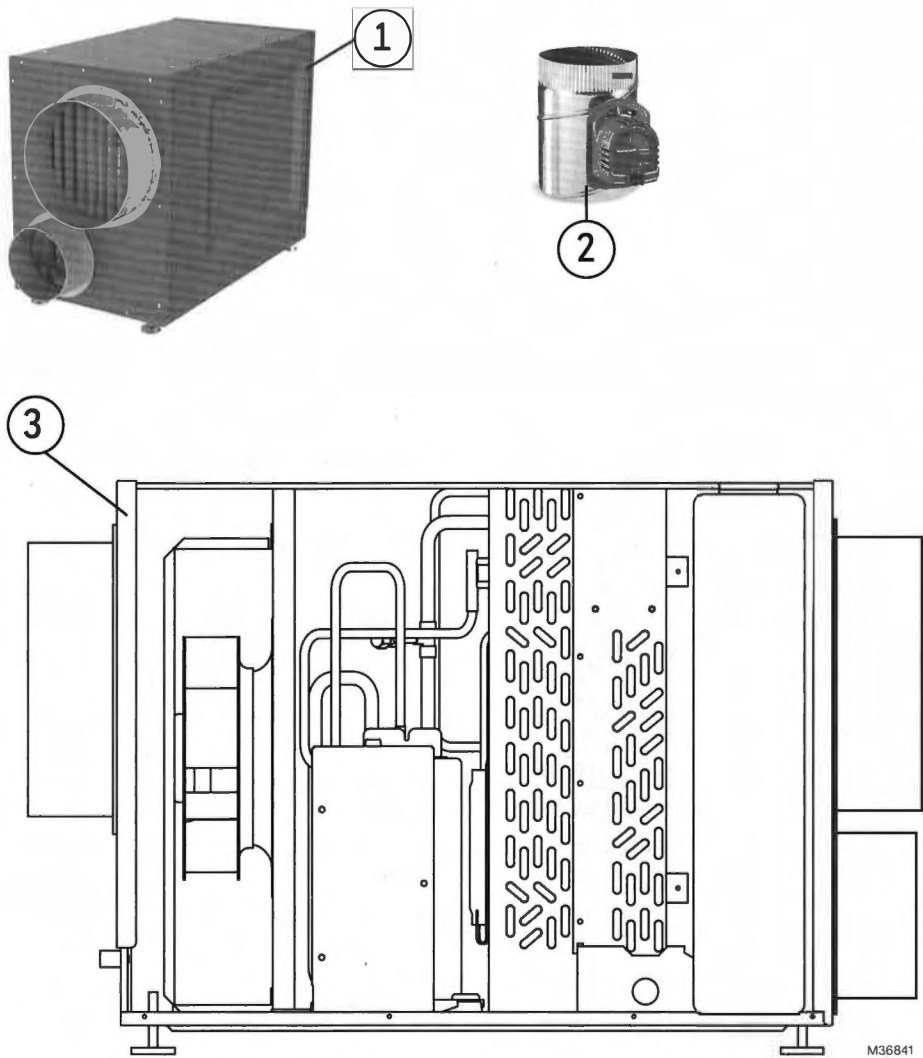
## Troubleshooting (continued)

Problem	Troubleshooting Steps/Possible Causes of Issue
Fan runs when there is a call for dehumidification and the ventilation control is OFF, but the compressor cycles on and off too frequently.	<ol style="list-style-type: none"> <li>1. Low ambient temperature and/or humidity causing unit to cycle through defrost mode.</li> <li>2. Defective compressor overload.</li> <li>3. Defective compressor.</li> <li>4. Defrost thermostat defective.</li> <li>5. Dirty air filter(s) or airflow restricted.</li> <li>6. Low refrigerant charge, causing defrost control to cycle.</li> <li>7. Bad connection in compressor circuit. Fan does not run with fan switch in either position</li> </ol>
Fan does not run with ventilation activated. Compressor runs briefly but cycles on & off with humidity control turned to ON.	<ol style="list-style-type: none"> <li>1. Loose connection in fan circuit.</li> <li>2. Obstruction prevents fan rotation.</li> <li>3. Defective fan.</li> <li>4. Defective fan relay.</li> <li>5. Defective fan capacitor.</li> </ol>
Evaporator coil frosted continuously, low de-humidifying capacity.	<ol style="list-style-type: none"> <li>1. Defrost thermostat loose or defective.</li> <li>2. Low refrigerant charge.</li> <li>3. Dirty air filter(s) or airflow restricted.</li> </ol>
Unit not providing ventilation.	<ol style="list-style-type: none"> <li>1. Check control wire connections (check connections at fresh air damper also).</li> <li>2. Defective fresh air damper.</li> <li>3. Dirty air intake. Clean outside intake hood.</li> </ol>
Unit removes some water, but not as much as expected.	<ol style="list-style-type: none"> <li>1. Air temperature and/or humidity have dropped.</li> <li>2. Humidity meter and or thermometer used are out of calibration.</li> <li>3. Unit has entered defrost cycle.</li> <li>4. Dirty air filter.</li> <li>5. Defective defrost thermostat.</li> <li>6. Low refrigerant charge.</li> <li>7. Air leak such as loose cover or ducting leaks.</li> <li>8. Defective compressor.</li> <li>9. Restrictive ducting.</li> <li>10. Optional Condensate Pump Safety Switch open.</li> </ol>
Unit Test to determine problem:	<ol style="list-style-type: none"> <li>1. Detach field control wiring connections from main unit.</li> <li>2. Connect the R and FAN contacts from the main unit together; only the impeller fan should run. Disconnect the wires.</li> <li>3. Connect the R and DHUM contacts from the main unit together; the compressor and impeller fan should run.</li> <li>4. If these tests work, the main unit is working properly. You should check the control panel and field control wiring for problems next.</li> <li>5. Remove the control panel from the mounting box and detach it from the field installed control wiring. Connect the blue, yellow, and green wires from the control panel directly to the corresponding colored pigtails on the main unit. Leave the violet, white, and red wires disconnected!</li> <li>6. Turn on the humidity control. The compressor and impeller fan should run.</li> <li>7. If these tests work, the problem is most likely in the field control wiring.</li> </ol>



# DR90/DR120 Parts List

Figure Reference	Base and Accessory Parts	Part Number
1	Dehumidifier	DR90A3000
1	Dehumidifier	DR120A3000
2	Motorized Ventilation Damper	EARD6TZ
3	Filter	50070171-002



For reference only.




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